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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

SHARP, JEFFREY ANDREW

ART UNIT

PAPER NUMBER

3677

DATE MAILED: 01/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/751,067	Applicant(s) CHEN, TED	
	Examiner Jeffrey Sharp	Art Unit 3677	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Status of Claims

- [1] Claims 1-5 are pending.

Specification

- [2] The disclosure is objected to because of minor grammatical informalities. Some examples are:

The words '*firstly*' should be --first-- on page 1 lines 15 and 20.

The word '*ways*' should be --methods-- on page 1 line 17.

The word '*loading*' on page 2 line 10 should be --bears--.

The word '*react*' on page 2 line 23 should be --reactive--.

The words '*is a*' should be --comprises-- on page 2 line 24.

The words '*exactly inserts*' on page 5 line 6 should be --fits exactly--.

etc....

Element identifier '500' has been used twice for '*furniture*' and for '*embedded object*' on page 6.

Appropriate correction and proofreading is required.

Claim Objections

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[3] Claims 1, and 3-5 are objected to because of the following informalities:

Claim 1 recites '*so that the embedded object **loading** the weight of the load*', which is incomprehensible.

In claim 3, '*extends*' on line 5 should be --extending--, and '*vertically*' on line 4 should be --vertical--. It further appears the Applicant may have meant --towards-- instead of '*to*' on line 6. There is also insufficient antecedent basis for '*the bottom*' in line 7. Term '*react*' on line 10 should be --reactive-- and the word --the-- should appear before '*annular surface*' on line 9

Claim 4, '*is*' should be --comprises-- on line 2. The semicolon on line 5 should be a comma.

Claim 5, the semicolon on line 5 should be a comma.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

[4] The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

[5] Claims 1 and 3-5 rejected under 35 U.S.C. 103(a) as being unpatentable over Gartside US-573,970 in view of Flogaus US-2,470,924.

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Gartside teaches a combining device comprising an embedding unit (E), and a hollow coupling unit (G). The embedding unit (E) is to be embedded into an object (A).

However, Gartside fails to disclose expressly elastic buckling means on the second end (F) of the embedding unit (E).

Flogaus teaches elastic buckling means (9,11,12) at the end of an embedding unit (1). The embedding unit taught by Flogaus has a first end (8,13) that is to be embedded into an object (4). See Figure 5.

At the time of invention, it would have been obvious to one of ordinary skill in the art to modify the embedding unit (E) taught by Gartside, to comprise the elastic buckling means (9,11,12) taught by Flogaus, in order to provide improved resilient coupling means for joining the two parts of the combining device, regardless of tolerances. In other words, by giving elastic means to the second end (F) of the embedding unit (E) taught by Gartside, the second end (F) could be secured in hollow coupling units (G) having variations and fluctuations in channel diameter.

As for claim 3, Gartside teaches tapered rings on the outer surface of the embedding unit. Tapered rings for frictional fit in combining devices are common in the prior art, as shown in: US-4,681,477, US-5,131,783, US-6,176,662, US-2,279,955, US-2,279,956, US-3,883,258, and US-3,349,649. Gartside does not teach away from any particular ring structure.

As for claims 4 and 5, the second end comprises 2 sets of biforked posts arranged oppositely. The front end has a plurality of hooks (11) that *'will be'* buckled in the channel of the hollow coupling unit. Note that it has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed

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apparatus from a prior art apparatus satisfying the claimed structural limitations. *Ex parte Masham*, 2 USPQ 1647 (1987). See also, MPEP 2144.04 'Duplication of Parts', US-3,736,834, US-6,394,806 (Figures 8 and 9), US-1,056,452, US-5,782,918 (Figures 3 and 4), and US-4,449,877 (Figures 5-8).

[6] Claim 2 rejected under 35 U.S.C. 103(a) as being unpatentable over Gartside v. Flogaus as discussed above, in further view of Nemecek US-4,341,487, Roberts US-2,100,873, or Houk US-2,384,918.

Gartside v. Flogaus teaches all of the limitations of claim 1 as discussed above.

However, Gartside v. Flogaus fails to disclose expressly a sliding sleeve on the embedding unit.

Nemecek, Roberts, and Houk teach sliding sleeves on combining devices (e.g., 'dowels') for the general purpose of eliminating the need to control tolerances between the male second end and the channel of the hollow coupling unit.

At the time of invention, it would have been obvious to one of ordinary skill in the art to modify the coupling device taught by Gartside v. Flogaus, to comprise a sliding sleeve as suggested by either Nemecek, Roberts, or Houk, in order to allow for variations in tolerance between the male (second end of the embedding unit) and female (channel of the hollow coupling unit) components. Sliding sleeves are commonly used as tolerance-compensating friction components, and are seen on couplings such as banana plugs for electrical connectors and corrugated split tolerance rings for bearing press-fits. See also, US-3,227,030 and US-4,327,947, which similarly teach sleeve members that span between male and female members to

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provide frictional engagement between the two, but are configured to 'not be so tight', allowing 'removeability' or 'temporary' holding.

Conclusion

[7] The prior art made of record and not relied upon is considered pertinent to applicant's disclosure is as follows:

US-6,517,543 Berrevoets et al. teach a two-part combining device with internal means for securing.

US-3,115,804 Johnson teaches biforked means for engaging a channel.

US-6,561,846 D'Addario teaches banana plug connectors comprising a sleeve-like member that provides a similar 'slipping' or 'reduced friction' connection with a channel.

US-4,830,536 Birch et al. (Figures 13-15) teach four elastic buckling posts that engage a channel of a hollow coupling unit, pertinent to claim 5.

US-1,374,713 Bell teaches a biforked second end (12) comprising hooks that engage the channel of a hollow coupling unit (5).


[8] Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey Sharp whose telephone number is (703) 305-0426. The examiner can normally be reached on 7:30 am - 5:00 pm Mon-Fri.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, J.J. Swann can be reached on (703) 306-4115. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JAS


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